

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021493**Date Inspected:** 28-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Mike Johnson		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No
Rod Oven in Use:	Yes	No
Weld Procedures Followed:	Yes	No
Verified Joint Fit-up:	Yes	No
Approved WPS:	Yes	No
Delayed / Cancelled:	Yes	No

Component: S.A.S. components

Bridge No: 34-0006**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project.

The QAI accompanied Caltrans representatives Jason Wilcox, Philip He and ABF representative Chuck Kanapicki in conducting the post arrival inspection of voyage 7 components. During the inspection, the QAI noted that painted surfaces have been marred from general shipping and handling. The QAI noted that minor rusting is visible through the primer coating on the edges of the field splice connections of the crossbeams. The QAI noted there does not appear to be other shipping related damage. The QAI noted there are other components that have not been examined for post arrival at this time. The QAI was informed that additional post arrival inspections of voyage 7 components will be scheduled when ready. See the attached photo.

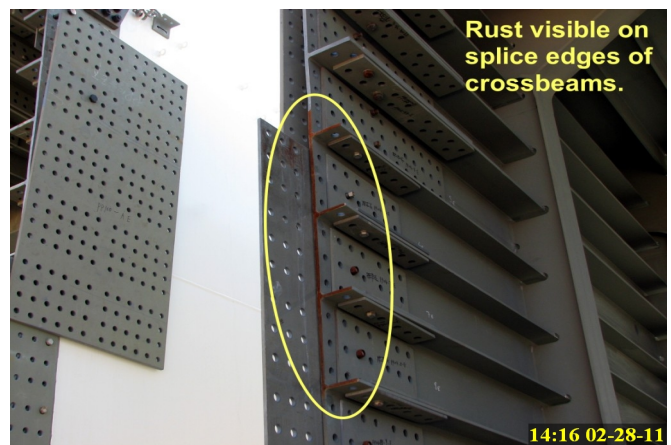
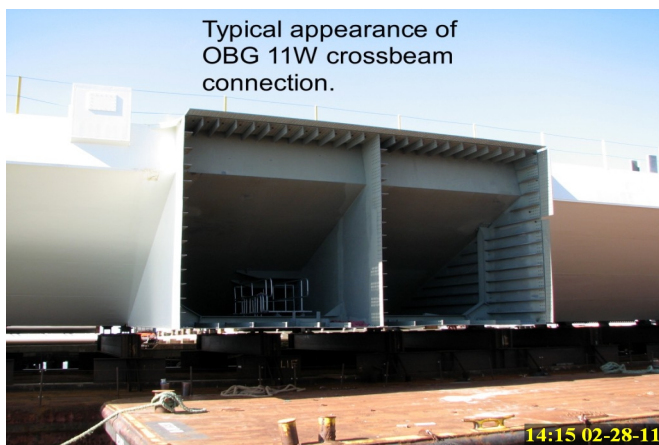
The QAI observed ABF personnel welding cover plates into the South shaft of the Tower Grillage at Pier 7. The QAI noted that all the materials to be welded are grade 485W. The QAI was informed that the root passes of the overhead groove (4G) complete joint penetration (CJP) welds will be put in and that a 2nd layer of welds will be put into the CJP's before any welding of the 4G partial joint penetration (PJP) welds will be made. The QAI was informed that per Caltrans Engineer Mark Woods, the contractor does not need to maintain continuous preheat / 3 hours of post welding heat on these joints. The QAI noted that the Quality Control (QC) Inspector Mike Johnson is monitoring the welding. The QAI noted that Rick Clayborn, ID 2773, Richard Garcia, ID 5892, and Gilbert Peralta, ID 9453, are using shielded metal arc welding (SMAW) with E9018-H4R electrodes. The QAI noted that welding procedure specification (WPS) being used for the CJP welds is ABF-WPS-D15-1042A-4.

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The QAI made random observations / measurements of the welding parameters as the welding was being performed. The QAI noted that the welding voltage, current, preheat and interpass temperatures appeared to be within the WPS requirements. The QAI also noted that as the root welding progressed, cracked tack welds were being removed by grinding. The QAI was informed by the QC Inspector that magnetic particle testing (MT) is being conducted on the tack weld removal areas. The QAI observed that several (8) tack welds visible along the cover plates and the PJP weld appear to be cracked. The QAI was informed that these will be removed after the CJP welds get filled with the 2nd layer. See the attached photos.

The QAI reviewed contract related documents including the submitted and approved Welding Quality Control Plan (WQCP) and approved revisions to the WQCP. The QAI continued reviewing and consolidating the information from welding report report packages to identify missing reports of inspections and general compliance to the contract requirements. The QAI continued generating a weld specific tracking list from the contractor's welding reports. The QAI continued the cumulative review of all submitted and bootleg welding reports. During this process, the QAI identified additional missing reports / information that will be relayed to the contractor. The QAI noted that welding report submittals # 1536 revisions 40, 41, 42 and 43 have been generated. The QAI began reviewing these documents for conformance with the contract requirements.



Summary of Conversations:

The QAI had general conversations with ABF and Caltrans personnel during this shift, as noted above. The QAI relayed the status of the post arrival inspection, weld report reviews and tower grillage welding to the QAI Lead Bill Levell. Except as described above, there were no other notable conversations.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Croff, Scott	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
